



Permit to Construct or Modify an Air Contaminant Source Issued Pursuant to Tennessee Air Quality Act

Date Issued: February 26, 2015

Permit Number:  
969722P

Date Expires: June 1, 2015

Issued To:  
Volunteer Community Hospital

Installation Address:  
161 Mt. Pelia Road  
Martin

Installation Description:  
**Emergency Generator:**  
One (1) Internal Combustion Diesel  
Fuel-Fired Emergency Engine (530 hp)  
with Generator

Emission Source Reference No.  
92-0160-01  
NSPS, Part 60 Subpart IIII  
NESHAP, Part 63 Subpart ZZZZ

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

**CONDITIONS:**

1. The application that was utilized in the preparation of this permit was received on December 29, 2014 and is signed by Roger Hill, Plant Director of the permitted facility. If this person terminates employment or is reassigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

(conditions continued on next page)

TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

**POST AT INSTALLATION ADDRESS**

2. The rated horsepower and manufacturing date for the emergency CI diesel engine serving the generator are provided below in a tabular format. This emergency diesel IC engine is subject to the requirements of NSPS (standards of Performance for New Stationary sources) - 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and NESHAP (National Emission Standards for Hazardous Air Pollutants) – 40 CFR Part 63 Subpart ZZZZ, for Stationary Reciprocating Internal Combustion Engines (RICE). The permittee shall comply with all Federal and State regulations including but not limited to, the Regulations as outlined above.

Engine Manufacturer	Engine Model No	Engine Horsepower Hp	Year of Manufacture	Generator output, kw
IVECIO-FIAT	F3BE9685A-E	530	March, 2014	350

3. The stated design power output capacity for the internal combustion engine is 530 horsepower (hp). Any increase in this capacity will require a construction permit.

TAPCR 1200-03-09- .03(8) .01(1)(d) and the application was received on December 29, 2014

4. On the permit application, the permittee stated that this generator is used for emergency purposes. Therefore, based on EPA policy, the allowable emissions were calculated using 500 hours per year. This condition is for fee and informational purposes only and is not a limitation. Pursuant to TAPCR 1200-3-26-.02(6)(b)
5. Particulate matter (TSP) emitted from the IC emergency diesel engine shall not exceed 0.2g/kW-hr (0.154 pounds/hour (lb/hr)). Compliance with this limit shall be indicated by compliance with Condition 10. This emission limitation is established pursuant to 40 CFR 60 Subpart IIII, (§60.4205 (b) and §60.4202(a)(2)).
6. Carbon Monoxide (CO) emitted from these four engines serving the generators shall not exceed 3.5 g/kW-hr (2.7 lbs/hr). Compliance with this limit shall be indicated by compliance with Condition 10. This emission limitation is established pursuant to 40 CFR 60 Subpart IIII, (§60.4205 (b) and §60.4202(a)(2)).
7. NMHC + NO<sub>x</sub> emitted from these four engines serving the generators shall not exceed 4.0 g/kW-hr (3.1 lbs/hr). Compliance with this limit shall be indicated by compliance with Condition 10. This emission limitation is established pursuant to 40 CFR 60 Subpart IIII, (§60.4205 (b) and §60.4202(a)(2)).
8. The permittee shall use diesel fuel that meets the requirements of §60.4207 (b) and §80.510(c), as follows per gallon standards :
- (1) Sulfur content shall not exceed 15 ppm maximum for nonroad diesel fuel.
  - (2) Cetane index or aromatic content, as follows:
    - (i) A minimum cetane index of 40; or
    - (ii) A maximum aromatic content of 35 volume percent.
9. Pursuant to §60.4206, owners and operators of emergency stationary CI RICE and control device (if present) must operate and maintain the emission standards (in conditions 5-7) that achieve the emission standards as required in 40 CFR §60.4205 over the entire life of the engine.
10. Pursuant to 40 CFR §60.4211(a) and (c), the permittee must comply by purchasing an engine certified to the emission standards in § 60.4205(b) (Conditions 5 –7) for the same model year and maximum engine power. The permittee must do all of the following:
- (a) Install and configure the engine according to the manufacturer's emission-related specifications;
  - (b) Operate and maintain the emergency stationary RICE and control device (if present) according to the manufacturer's emission-related written instructions;
  - (c) Change only those emission-related settings that are permitted by the manufacturer; and

(d) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply.

11. Pursuant to 40 CFR §60.4211(f), the permittee must operate the emergency stationary ICE according to the requirements in paragraphs (1) through (3) of this condition. In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (1) through (3) of this condition, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (1) through (3) of this condition, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
- (2) The permittee may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (2)(i) through (iii) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (2).
  - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Technical Secretary for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
  - (ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (2) of this condition. Except as provided in paragraph (3)(i) of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
  - (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
    - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
    - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
    - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
    - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
    - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

12. The permittee must keep monthly records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for the following categories: (a) emergency operation, as specified in Condition 11, Paragraph (1), including what classified the operation as emergency; (b) maintenance checks and readiness testing, demand response, as specified in Condition 11, Paragraph (2); and (c) non-emergency operation, as specified in Condition 11, Paragraph (3). The permittee shall calculate the operating hours during all intervals of twelve consecutive months. The permittee shall maintain the following log format or an alternative format which readily provides the same required information.

Logs for emergency stationary ICE: Source 92-0160-01

Month, Year	Emergency Operation (hr/mon)	Emergency Operation (hr/12 consecutive months)	Maintenance Checks and Readiness Testing (hr/mon)	Maintenance Checks and Readiness Testing (hr/12 consecutive months)	Non-Emergency Operation (hr/mon)	Non-Emergency Operation (hr/12 consecutive months)
		Column A		Column B		Column C
January						
February						
Etc.						
December						

	Add Columns B+C	Add Column C
Limit	100 hours	50 Hours
January		
February		
Etc.		
December		

13. The Emergency Diesel Engine serving the Generator is subject to regulations under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) as follows:
- a) The permittee shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ, by meeting the requirements of 40 CFR Part 60, Subpart IIII (NSPS). No further requirements apply for this engine under 40 CFR Part 63, Subpart ZZZZ.
14. This permit for the IC engines serving generators is valid only at this location.
15. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity, except for one (1) six-minute period in any one (1) hour period and for no more than four (4) six-minute periods in any twenty-four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).
- TAPCR 1200-03-05-.03(6) and TAPCR 1200-03-05-.01(1)
16. This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards. TAPCR 1200-03-09-.03(8)
17. This permit shall serve as an operating permit until the receipt of a standard operating permit (regardless of the expiration date), provided the operating permit is applied for within **30 days of the issuance date of this permit** and provided the conditions of this permit and any applicable emission standards are met. TAPCR 1200-03-09-.02(2)

